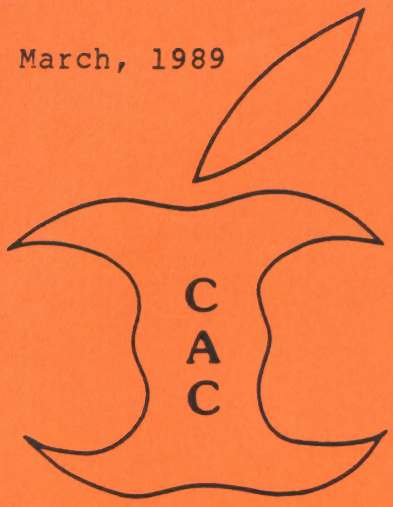
March, 1989



FROM THE CORE

CAROLINA APPLE CORE P.O. Box 31424 Raleigh, N.C. 27622

Protection from Trojans and Other Terrorist Acts

by Phil Albro
part one of a two-part series.

The news has been full of the recent incident in which a computer "virus" managed to infect hundreds if not thousands of computers attached to Infonet, Arpanet, Bitnet and some other communications networks. This was news to the general public, but certainly not to computer afficionados, who had been aware of (and had perhaps suffered from) these examples of sick programming for many years. This article describes an approach that can be taken by users of personal computers to at least partially protect themselves against the destructive effects of "xenobytotic" programs.

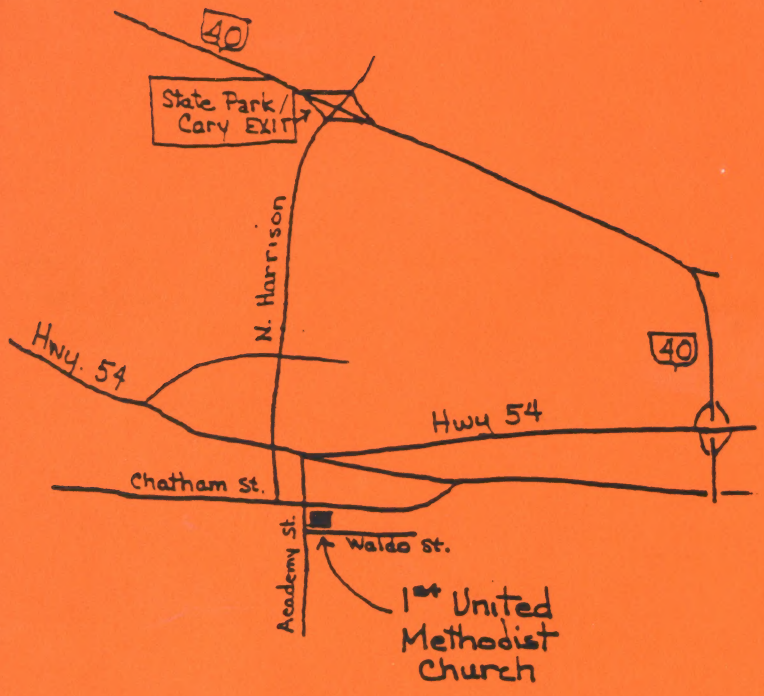
Personal computers differ from mainframe computers in one critically important way, relative to protection schemes: mainframes are rarely if ever "turned off", while personal computers are often shut down at the end of a working day. Turning off a computer flushes everything out of its memory. It is the fact that mainframe computers are intended to be in use (or at least accessible) 24 hours a day, and the fact that mainframes are multiuser devices, which make them more susceptible to the destructive effects of xenobytotic infection than personal computers.

"Trojans horses", are programs or parts of programs that sit harmlessly in your computer (or on disk untile predetermined event occurs. The trigger may be running the program a certain number of times, your built-in clock reaching a particular date, or anything the programmer of the Trojan can figure out how to have his program detect. When this event occurs, the Trojan performs whatever act of terrorism the programmer had planned. It may simply stop the running program and write an obscene message on your screen; it may erase all the disks currently on-line; or it may reformat your hard drive, for example.

A **"virus"** differs from a simple Trojan in that it reproduces. It makes copies of itself within other programs on your disks, or on disks belonging to other users of any shared computer network to which you may be attached. The least harmful viruses merely reproduce and eventually fill your computer memory and all available disk space. The most harmful ones are actually modified Trojans; that is, after they have reproduced themselves throughout a network, they destroy all data files and programs on all the computers they have managed to infect.

A **"worm"** is a program or part of a program that runs "under" or "behind" the program it infects. You may be running a word processor, while unbeknownst to you a "worm" program is reading a file containing your mailing list and making a copy of it with a file name known to the worm's author. Later the worm-writer will transfer this duplicate of your mailing list to his own computer. This type of program can be used to steal a copy of the file containing all the user names and passwords for a "secure" BBS, for example.

Programs called **"vaccines"** (named after the most famous program of this type) search a disk for viruses, and in some cases, remove them. This is usually done by searching for segments of code that call for writing to the disk, and asking the operator if this program is SUPPOSED to write to disk at that point. Obviously, this approach is only practical for programs that are never supposed to write to disk. The "disk searcher" virus hunters were originally quite effective, but the "hackers" who write virus programs have learned to conceal their disk writes within self-modifying code. There are now memory-resident "vaccines" that intercept every attempt to write to disk and stop the running program until the operator chooses to allow it to continue. These are effective, but cause annoying delays in harmless programs.



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Last Month

Elections !!! The results are in as presented in the masthead. There's still the need for your volunteer help. There was an entertaining audience participation demo of GEOS. Larry Young was the proud winner of an Apple t-shirt.

This Month

The meeting this month will be a help session, featuring the clairvoyant wizards of our own user group. Bring your pet problem, or better, your pet solution! A brief demonstration of the program **PUPS** may also be made.

See you on Tuesday, March 21, 7:30 pm at the United Method Church of Cary!

Get Involved

The office of president is still vacant following the elections last month. Do you have a steady hand to place on the helm? Steely eyes to stare unblinking at the challenges ahead? A free evening or two once a month? Your help is needed!

Twos Not In the News

The Sunday, February 26, 1989 edition of the New York Times featured on the front page of its Business section a worried-looking John Sculley. "Apple Computer fights to keep its magic," fretted the Times, because of falling profits and departing executives. While the article detailed recent problems in the Macintosh line (price hikes ordered by management that turned away customers, and an over-supply of 1 megabyte chips purchased when prices were at their peak), there was no mention of the faithful old Apple II. Conspicuous by its absence, it seems that the II is doing well for its owners and its manufacturer alike. Tom Weishaar of A2-Central is more blunt: "Since Apple doesn't sell any Apple II products that use 1 meg chips, it would be fair to place the entire blame for the profit drop on the Macintosh product line."

GEOS, A Review

by geoKiefer

If you don't see the humor in the byline by the end of the first column, you're in for a long review article. If it's not funny, think of it as penance for missing the February meeting. This written version of the **GEOS** demo cannot capture the delight of the audience participation, the interaction, and the insight, but...that's what happens in these short months.

What In the World...?

GEOS is an integrated software package from **Berkeley Softworks.** Currently, I have at my command (more about my casual use of that phrase later on) a word processor (geoWrite), with a spelling checker (geoSpell) with its 38,000 word dictionary (called, what else, geoDictionary), a paint program (geoPaint), a mail merge and form letter generator (geoMerge), desk accessories (notepad, calculator, alarm clock, puzzle), photo and text managers called grabbers (to import text and graphics from similar ProDOS-based programs).

In working with GEOS, I used other programs of mine as standards by which to judge. For example, I compared the geoWrite word processor with my Apple Writer word processor. I am not fond of WYSIWYG programs; I find that geoWrite lacks the power and flex of Apple Writer. However, Apple Writer lacks both a spell checker and a paint program. Staying all the while within GEOS, I can design letterhead upon which to write my letters, and, except for my stubby geoFingers, it all works smoothly together. Keep some sort of similar comparison in mind as you weigh stand-alone programs against the integrated ones.

Iconoclasts Unite!

With its graphics orientation, GEOS is headed up by that producer/director team, Point and Click, and is based out of that electronic ROME (as in all roads lead to...) called the deskTOP. GEOS, naturally, is chockfull of mouse and graphic treasures: icons, menu bars, icons, pull down menus, icons, windows, icons, "pop up" accessories, icons, and dialog boxes. And did I mention icons? It's meant to be mouse driven. The less flexible among us may still use both keyboard and text to communicate, if one must (you hear Ms. geoManners sniff in the background). One must, you hear her voice drone on unpleasantly, be accompanied by a note from either your mother or your user group president. Sniff.

GEOS is a powerful program and, thus, a complicated one. When they tell you to read the manual, they're not joking. Additionally, the program "...takes full advantage of the disk as a memory device and not just a place to store files." There is a between-the-lines and a hint: There is a lot of disk access. You oughta have at least two drives or the patience of Job. Your pick.

Nonetheless, if want an integrated program, and either don't have Appleworks or you do but are disappointed in it, or if you're struck with software lust, then I suggest that you give serious thought to purhcasing GEOS. Check Babbages for a goodly low price. In my estimation, GEOS has stolen a march on Appleworks for the //e's and //c's and compatibles of this world. Although Claris may not yet know it, this is defeat (di-fet') n. 1. being beat soundly about the head and shoulders. 2. Marketing term (slang): what happens when the competition pays attention to a line of computers you've neglected.

'If you read dictionaries for grins, you'll love geoSpell. That alone is worth the price of admission.'

There are several more fact-filled reviews (A+, September 1988; The Apple //GS Buyer's Guide, Fall, 1988; and Incider, March 1988) but they're not as funny and have no quotes from Phil Albro. Keep in mind that GEOS has been upgraded since these reviews. For example, a major criticism was that GEOS was burdened with a nasty copy protection. IT NO LONGER IS. I had planned on referencing these other reviews, partly in an attempt to give this one class and partly to give perspective on these changes. We'll see.

Let's check out of sector 32 and get to the meat of the matter: **System Requirements.** Actually, cost is the meat of the matter but, in an attempt to be discrete we're not going to mention that (you can skip ahead to the third to the last paragraph where I do mention it, if you want. I won't tell).

1) an enhanced //e, a //c, //c+, or //GS;
2) minimum 128K memory with 256K RAM expansion card recommended;
3) one five and one-quarter inch drive but, since the program supports up to four drives at one time, take the hint;

continued on page 10.

Antiviral Treatments

compiled by Sallie Abbas

In the April 1989 issue of A+ magazine, there is a list of programs for helping to protect against viruses:

Virus Detector by Guy Rice, in the public domain. "Automatically checks boot disks each time GS/OS is launched and warns Apple IIGS users if their boot disks contain the Festering Hate or CyberAIDS virus."

Virus.Rx, by Glen E. Bredon, 521 State Rd., Princeton NJ 08540 ($20). "Compares your applications with information from known-to-be-safe versions, informing you of any discrepancies."

VirusMD, by Morgan Davis, public domain. "Scans disks for files infected with the CyberAIDS/Festering Hate virus, restoring sick files to their original state."

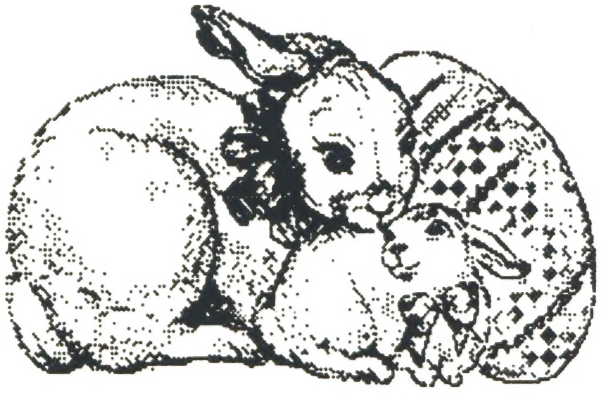
Mister Fixit, by Glen Bredon, see above address ($40). "Part of an indispensable set of ProDOS utilities in Glen Bredon's ProSel package," Mister Fixit attempts to repair corrupted disk volumes.

Apple II Virus Scanner, by Tom Weishaar, with inspiration from Dennis Doms and Eric Mueller. See listing. This virus detection program scans SYS files (ProDOS 8) and checks for the CyberAIDS/Festering Hate virus.

Listing. Apple II Virus Scanner.

```
900  D$ = CHR$(4)
910  DIM F$(300,1)
1000 TEXT:HOME:PRINT CHR$(21)
1001 INVERSE
1002 PRINT "APPLE II VIRUS SCANNER:V 1.0"
1003 NORMAL
1004 PRINT
1005 PRINT "     COPYRIGHT 1988 BY"
1006 PRINT "TOM WEISHAAR OPEN-APPLE/GENIE"
1007 PRINT
1008 PRINT "FOR THE LATEST VERSION OF THIS PROGRAM,"
1009 PRINT "CHECK OUT CAT 40 IN GENIE'S A2 LIBRARY."
1010 PRINT
1011 PRINT "FREEWARE: MAY BE COPIED AND DISTRIBUTED"
1013 PRINT
1014 "    PRESS <RETURN> ALONE TO QUIT."
1015 PRINT:PRINT:PRINT
1020 REM get slot
1021 PRINT "SCAN DISK DEVICE IN WHICH SLOT?";
1022 INPUT "";S$:IF S$="" THEN PRINT D$;"BYE"
1023 S=VAL(S$)
1024 IF S<1 OR S>7 THEN PRINT CHR$(7): GOTO 1020
1040 REM get drive
1041 PRINT "    IN WHICH DRIVE?";
1042 INPUT "";DR$:IF DR$="" THEN 1020
1043 D = VAL(DR$)
1044 IF D<1 OR D>2 THEN PRINT CHR$(7):GOTO 1040
1100 REM start disk scan
1110 ONERR GOTO 1190
1120 PRINT D$;"PREFIX,S";S;",D";D
1121 PRINT D$;"PREFIX"
1122 INPUT F$:GOSUB 4000:F$(0,0)=F$:F$(0,1)="DIR"
1123 POKE 216,0
1130 PRINT: PRINT "CHECKING ";F$(0,0)
1131 PRINT "THIS MAY TAKE A WHILE...":PRINT
1140 PRINT D$;"BLOAD";F$(0,0);",TDIR,A$300,B511,L1"
1141 IF PEEK(768)=0 THEN 1150
1142 PRINT "CAUTION: VIRUS COUNTER ON THIS DISK=";
  PEEK(768)
1150 REM clear F$(x,x) array
1151 FPNT = 1
1152 IF F$(FPNT,1) = "" THEN GOTO 1154
1153 F$(FPNT,1) = "":FPNT = FPNT + 1:GOTO 1152
1154 FPNT = 0:DIRPNT = 1: NSYS=0:GOTO 1152
1190 REM handle no device connected error
1191 IF PEEK(222)<>3 AND PEEK(222)<>8 THEN 9900
1192 CALL -3288
1193 PRINT CHR$(7)
1194 IF PEEK(222)=3 THEN PRINT "NO DEVICE AT SLOT ";
  S;",DRIVE ";D
1195 IF PEEK(222)=8 THEN PRINT "I/O ERROR AT SLOT "
  ;S;",DRIVE ";D
1196 PRINT
1197 POKE 215,0: GOTO 1020
1200 REM main loop
1210 IF F$(FPNT,1)="DIR" THEN GOSUB 2000:FPNT=
  FPNT + 1: GOTO 1210
1220 IF F$(FPNT,1)="SYS" THEN GOSUB 3000:FPNT=
  FPNT + 1: GOTO 1210
1230 PRINT : IF NSYS THEN M$ = "MORE "
1240 PRINT "NO ";M$;"SYS FILES ON THIS DISK. ";
1250 M$ = ""
1260 INPUT "";A$
1270 GOTO 1000
2000 REM search a directory for DIR and SYS files
2010 ONERR GOTO 2900
2011 PRINT D$;"OPEN";F$(FPNT,0);",TDIR"
2012 PRINT D$;"READ";F$(FPNT,0)
2013 INPUT F$: IF LEN(F$)<40 THEN 2013
2014 INPUT F$
2100 REM search directory loop
2110 INPUT F$: ON F$="" GOTO 2910
2111 DIR$=MID$(F$,18,3): F$=MID$(F$,2,16)
2112 GOSUB 4000
2130 IF DIR$="DIR" THEN F$(DIRPNT,1)="DIR":DIRPNT=
  DIRPNT + 1
2140 IF DIR$="SYS" THEN F$(DIRPNT,1)="SYS":DIRPNT=
  DIRPNT + 1
2150 GOTO 2110
2900 REM handle end-of-file error
2901 IF PEEK(222)<>5 THEN 9900
2902 CALL -3288
2910 POKE 216,0
2911 PRINT D$;"CLOSE"
2912 RETURN
3000 REM do virus check on a SYS file
3005 ONERR GOTO 3900
3010 PRINT D$;"BLOAD";F$(FPNT,0);",A$300,L6,B0,TSYS"
3020 DETECT=1:NSYS=NSYS+1:TTL=0
```

continued on page 5.



"MY DISK DRIVE ATE IT" AND OTHER EXCUSES

Reprinted from Signal,
Honolulu Apple Users' Society

Before computers (B.C.), kids used to come to school without their homework and tell the teacher, "My dog ate it." In our more advanced society, kids come to school without their homework and tell the teacher, "My disk drive ate it."

Before computers, college kids used to come to class without their assignments and tell the professor, "Sorry man, bad karma." In our more advanced society, college kids come to class without their assignments and tell the professor, "Sorry man, bad software."

The personal computer, with all its quirks and frailties, is revolutionizing education in a manner which nobody predicted – it is providing a mother lode of new excuses that previous generations couldn't have even imagined.

For the sake of the unfortunate students faced with an evil teacher staring them in the face and asking "Why haven't you turned in your homework?", I have prepared a list of responses that might get you off the hook...

- "I ran out of printer paper."
- "I forgot to make a backup copy."
- "I spilled a Coke on my keyboard and it was useless."
- "My parents had to use the computer to do their finances."
- "My father was playing Dungeons and Dragons all night and threatened to hack me to pieces if I tried to use the computer."
- "My little sister yanked out the power cord and I lost everything."
- "I did my homework, but I ran out of printer ribbons, so I couldn't print it out."
- "I couldn't turn on the printer because it would wake my little brother."
- "I had to go to my user group meeting last night."
- "There was an electrical storm that zapped my hard drive."
- "I went temporarily blind from staring at my VDT too long."
- "My desk isn't ergonomically correct, so I couldn't do my homework without risking serious injury."
- "You didn't get it? I sent it to your electronic mailbox."
  "My computer and I are incompatible."
- "My little sister used all my disks to make an arts and crafts project."
- "I can't type on a QWERTY keyboard. I learned Dvorak method."
- "I ran out of space on the disk, and the computer store was closed so I couldn't buy new ones."
- "My laser printer went bonkers and burned a hole through the ceiling."
- "Homework? What homework? I have it in my database that you didn't assign us any homework last night."
- "Would you believe it? I hit the wrong key and erased the file!"
- "I broke my back trying to carry home the new issue of PC World magazine."
- "Somebody planted a virus in my computer and I had to spend the whole night debugging it."
- "I had to spend the whole night helping the FBI catch a guy who planted a virus in the Pentagon computer system."
- "I got caught planting a virus in the Pentagon computer system and had to spend the whole night in jail."
- "Homework? Who needs it? I dropped out of school, formed my own software company and we go public next week. Are you looking for a new job?"

-Dan Gutman

continued from page 4.

```
3030 FOR ADR = 771 TO 773
3031 TTL=TTL+PEEK(ADR): IF TTL>256 THEN TTL=TTL-256
3032 NEXT
3040 IF TTL<>57 THEN 3700
3050 ADR=(PEEK(769)+(PEEK(770)*(256))-8192
3060 PRINT D$;"BLOAD";F$(FPNT,0);",A$300,L4,B";ADR;",TSYS"
3070 IF PEEK(768)<>32 THEN DETECT = 0
3071 IF PEEK(769)<>88 THEN DETECT = 0
3072 IF PEEK(770)<>255 THEN DETECT = 0
3073 IF PEEK(771)<>186 THEN DETECT = 0
3690 ON DETECT GOTO 3800
3700 REM no virus in this file
3710 PRINT "OK: ";F$(FPNT,0)
3720 POKE 216,0: RETURN
3800 REM file appears infected
3810 DCNT = DCNT + 1
3820 PRINT CHR$(7)
3822 PRINT F$(FPNT,0);" APPEARS INFECTED."
3825 PRINT " DELETE IT (Y/N) ";
3830 GET A$: PRINT A$: PRINT
3840 IF A$ = "Y" OR A$="y" THEN GOSUB 3860
3850 POKE 216,0: RETURN
3860 REM delete current file
3870 PRINT D$;"UNLOCK";F$(FPNT,0)
3880 PRINT D$;"DELETE";F$(FPNT,0)
3890 RETURN
3900 REM handle end-of-file error
3901 IF PEEK(222)<>5 THEN 990
3902 CALL -3288
3903 DETECT = 0: GOTO 3200
4000 REM delete trailing spaces & slash in F$
4010 FOR I=LEN(F$) TO 2 STEP -1
4020 IF MID$(F$,I,1)="" OR MID$(F$,I,1)="/" THEN
  F$=LEFT$(F$,I-1)
4030 NEXT
4040 RETURN
9900 REM fatal error
9910 PRINT "ERROR #";PEEK(222);" IN LINE ";PEEK
  (218) + PEEK(219)*256
9920 END
```

Buddy, Can You Spare the Time?

by Doug Brower

It's well known that, with the introduction of ProDOS, the Apple II learned to tell time. When a clock is installed in your computer, ProDOS makes the date and time available to the system so that disk files can be date- and time-stamped when they're created or modified. This makes it easy to find the most recent draft of a paper, learn when a certain program was written, and so on.

Another important use of a clock is to prevent embarrassment when handling form letters. Some thoughtful programs (like DBMaster) provide a way of inserting the current date into an invoice, form letter, or other document automatically — a real time and stress saver. (I can't count the times that I've had to tear up form letters prepared with Apple Writer because I forgot to put in the current date before I began processing my address list.)

So clocks are handy...if you don't have one yet, go buy one now! See CAC member Matthew Steir for a neato $20 job that nestles under a chip in your machine. It doesn't take up any of the valuable slots in the computer, and Matt has written some nice software for it.

Serious reasoning aside, clocks are fun to use. I'm sure Applied Engineering boosted sales of their clock card many fold when they figured out a way to make it display the current time right on the AppleWorks screen. That's fun! Almost entirely useless, of course, but unquestionably boffo. Those strange "appointment minder" programs belong in the same category. This kind of software apparently turns your computer into a microsecond time manager that will remind you of meetings, birthdays, anniversaries, deadlines, errands, visits to health care professionals, etc. Frankly, as neat as the idea sounds, I don't want my computer to know that much about my private life. I think it's figured out too much on its own already.

But let's get back to the time-on-the-screen gimmick. Is there a way you can do the same thing from a Basic program? Naturally! The following code fragment, taken from an idea by Myron Kerney in a letter to Open-Apple, will display the current time for you:

```
100 PRINT CHR$(4);"FLUSH"
110 MIN = PEEK(49042)
120 HOUR = PEEK(49043)
130 PRINT HOUR;":";MIN
```

Line 100 issues the Basic.System FLUSH command, which causes ProDOS to update its time register. This command will also empty any file buffers that you have open, which is a harmless action but may cause a short delay while the information in them is written out to disk.

A weakness of this code is that the time may not be displayed in a "conventional" digital format; it will be shown as 9:3, for example, when it should look like 9:03 or perhaps 09:03. Another weakness is that the cursor is not restored to its prior location after the time is printed to the screen. Both of these shortcomings can be eliminated with a more elaborate Basic program, but I chose to tackle the problem with a machine language program instead. Listing 1 is a short (90 bytes) subroutine that prints the current time in the lower-right corner of the display screen in either 40- or 80-column mode. It will not disturb the cursor, since the cursor is returned to its original location after the time is printed. The time is displayed in proper 24-hour format. If you don't have an assembler, you can type in Listing 2 to to create the subroutine instead.

Listing 3 is a program you can use to test the subroutine. It will convert your $2000 computer investment into a $5 digital clock (without alarm). What a deal!

For further reading
Weishaar and Doms, ProDOS Inside and Out, Tab Books (Blue Ridge Summit, PA: 1986).

Listing 1. Machine language subroutine to read the time from the clock and print it on the screen.

```
* TIME.ML
*
* by Doug Brower
* Carolina Apple Core
* A Public Domain Program
*
* A program to display the current
* time on screen.  Requires a clock!
*
* ProDOS only.
*
* Merlin 8 Assembler.

       ORG  $0300

* Screen locations:
CH     =    $24
CV     =    $25
OURCH  =    $057B

* ProDOS/Basic.System equates:
MLI    =    $BF00 ;machine lang interface
HOUR   =    $BF93 ;hour (from clock)
MINUTE =    $BF92 ;minute (from clock)
COL80ST=    $C01F ;high bit=80 col status
```

continued on page 7.

continued from page 6.

```
* Monitor/Applesoft ROM equates:
VTABZ  =    $FC22 ;like Applesoft VTAB
LINPRT =    $ED24 ;hex->dec and prints
COUT   =    $FDED ;print a byte

* Handy macros
LOAD  MAC          ;save stack in memory
      PLA
      STA   ]1
      <<<

SAVE  MAC          ;save memory on stack
      LDA   ]1
      PHA
      <<<

PRINT MAC
      LDX   ]1
      CPX   #10    ;less than 10?
      BGE   SKIP   ;no, continue below
      JSR   COUT   ;yes, print leading
SKIP  LDA   #0     ;fix acc. for LINPRT
      JSR   LINPRT ;hex->dec, then print
      <<<

*
* Main program
*
MAIN  JSR   MLI    ;machine lang interface
      DFB   #$82   ;DO_TIME command number
      DA    $0000  ;empty parameter table

      SAVE  CH     ;save cursor pos...
      SAVE  OURCH  ;column...
      SAVE  CV     ;...and row
      LDA   #23    ;go to last screen row
      STA   CV
      JSR   VTABZ  ;same as VTAB in Basic
      LDA   #74    ;assume in 80 col mode
      BIT   COL80ST ;using 80 columns?
      BMI   :1     ;yes, continue below
      LDA   #34    ;no, only 40 columns
      STA   CH     ;(if primary char. set)
:1    STA   OURCH  ;cursor at right edge

      LDA   #" "   ;leading blank if
      PRINT HOUR   ; hour<10

      LDA   #":"
      JSR   COUT   ;print a ":"

      LDA   #"0"   ;leading "0" if
      PRINT MINUTE ; min<10

* Finished!

      LOAD  CV     ;restore cursor pos
      JSR   VTABZ
      LOAD  OURCH
      LOAD  CH
      RTS
```

Listing 2. Basic equivalent of Listing 1.

```
110 FOR I = 1 TO 90
120 READ J
130 POKE 767+I,J
140 NEXT
150 PRINT CHR$(4);"BSAVE TIME.ML,
 A$0300,L90"
160 END
170 DATA 32,0,191,130,0,0,165,36,72,173,
 123,5,72,165,37,72,169,23,133,37,32,34,
 252,169,74,44,31,192,48,4,169,34,133,
 36,141,123,5,169,160,174,147,191,224,
 10,176,3,32,237,253,169,0,32,36,237,169
180 DATA 186,32,237,253,169,176,174,146,
 191,224,10,176,3,32,237,253,169,0,32,
 36,237,104,133,37,32,34,252,104,141,123,
 5,104,133,36,96
```

Listing 3. Test code for TIME routine

```
100 REM Tic-toc
110 REM by Doug Brower
120 REM Carolina Apple Core
130 REM A public domain program
140 :
150 REM Variables
160 D$ = CHR$ (4): REM DOS cmd char
170 KYBD = 49152:  REM keybd mem. loc.
180 SPKR = 49200:  REM speaker mem. loc.
190 TIME = 768:    REM our subroutine!
200 RST = 49168:   REM clear keyboard
210 PAUSE = 900:   REM adjust for 1 sec.
220 :
230 REM Install time routine
240 PRINT D$;"BLOAD TIME.ML"
250 :
260 REM Main program loop
270 CALL TIME
280 FOR I = 1 TO PAUSE: NEXT
290 CLIK = PEEK (SPKR)
300 IF PEEK (KYBD) < 128 THEN 270
310 :
320 REM Finished
330 POKE RST,0
340 END
```

A Walk In the Woods
This snapshot is from the Director's Retreat held last Christmas. From left to right: Stephan Kiefer, Rodney Reid, Alec Whittaker, David Crawford, Doug Brower. Not pictured (she's holding the camera!): Sallie Abbas

The Feminist Face of Computer Technology

by Jill Lippitt
condensed from
Woman of Power, Fall, 1988

When we began the National Women's Mailing List in 1979 no one would have been more surprised than I, a radical feminist, that I would find myself embracing computer technology, and later promoting it to other women. Until then technology, and computers in particular, seemed to exemplify the worst aspects of patriarchy, and I -- like most feminists then — approached it with suspicion.

My conversion began as I came to understand that many of my feminist dreams of networking, information-sharing, and mutual support and cooperation among women's groups could be more easily actualized using computer technology. Using a relatively inexpensive personal computer, we created a huge database of 60,000 individuals and over 10,000 feminist/progressive organizations for the women's movement to draw support from. In doing so we broke all the "rules" of the computerized mailing list business because they violated our sense of feminist ethics.

We refused to take the many mailing lists that were offered to us and add them to our database. We felt that it would be an invasion of privacy to put women's names on our computer who had not themselves joined the NWML network. Accepting those lists would have meant that NWML would have grown much bigger faster, but we rejected such short-term benefits. We believed that by respecting people's rights -- not by making them receive mail that they hadn't requested — our computer project could succeed to everyone's benefit.

Instead, we had individuals fill out and return a lengthy registration form, checking off the feminist areas of interest they wanted to receive mail in. We were told by incredulous computerized mailing list "experts" that "no one voluntarily puts themselves on a mailing list," yet alone sends a suggested donation of $3.50. What resulted was that thousands of women not only filled in the form and donated their money, but encouraged their feminist friends to do the same, so that within a year we had over 10,000 network members and we were able to provide exceptionally effective lists to a wide variety of feminist projects. By staying true to our principle of having individuals select what kind of mail they wanted to receive, our computer could connect grassroots groups to only those feminists who were most likely to support them.

Using the computer as we do, everyone wins. The participants in our network learn about new feminist organizations, products, and events they're interested in; the grassroots organizations have a relatively inexpensive way of communicating with a large number of potential supporters; and the network pays for itself -- thus meeting our objective of being independent of large funding sources.

Starting the computer-based National Women's Mailing List was my affirmation that this powerful new technology could include a feminist face. At that time the only apparent models of computer technology were those implemented by white men for individual/corporate profit or for dominance and control -- usually both.

'...powerful results can occur when feminists graft their sense of appropriateness onto male-inspired technology.'

Since the electronic age was born from the familiar male impulse towards dominance, it was difficult to separate the resultant technology from the values of those who created it. No wonder many women had an aversion to computers, and thought "feminist computer technology" was an oxymoron.

But patriarchy did not create technology. Rather, it exploited and distorted it from its beginnings in the time when the female principle was ascendant. For it was in humankind's earliest civilizations that science and technology were born — born from Goddess-centered societies where women's strengths and powers were celebrated. And these Goddess-centered civilizations represented the first 30,000 years of human existence.

Upon separating from 30,000 years of unity with the Goddess, the patriarchy created its Judeo-Christian one-male God, who in Genesis aptly gives to Man the power to name all the creatures on earth. And the power to name represents the power to separate out the parts from the whole, to discriminate, to make heirarchies, and ultimately to lose sight that all constitute an interconnected web of Life.

continued on page 9.

Easter Eggs

by Sallie Abbas

In "compuspeak", an Easter Egg is a hidden surprise, something undocumented, that occurs within a program. Finding one may be serendipitous and accidental. The only ones I know of were revealed to me by others.

Several have been reported in A+ magazine:

In Print Shop GS: As you enter the command to leave the program, hold down the open-Apple key. Doing so leads you to the La-La Land menu, where you get to meet the developers of the program. If you want to know who you're meeting, just move your mouse arrow over his or her face, and a name will appear. (Feb. '88)

In Print Shop Companion: On the front side of the disk, at the main menu, type STEVEN and then press the Esc key. Thereafter, everything on the screen appears upside down! (In case you're wondering, Steven is the middle name of programmer Roland Gustafsson.) On the back side of the disk, type ctrl-6 when you see the message that the back side is not bootable. Doing so starts up a nifty maze game you can play even without a disk operating system. (May, '88)

GS/OS: While booting Apple's new operating system for the IIGS, GS/OS, you can avoid watching the "Welcome to the IIGS" thermometer fill up by pressing the space bar once as your startup disk begins to spin. Presto! Greetings from Apple and version numbers of various system tools appear on the text screen. Press the space bar again to continue loading GS/OS. (Mar. '89)

Defender of the Crown: Several Easter Eggs are hidden in Cinemaware's game, such as pressing Shift-Option-Apple anytime the name of a princess is displayed -- her name then changes. Three others are listed in the April '89 issue of A+...hunt up those Easter Eggs for yourself!

Do you know of any more? Share them with us!

continued from page 8.

We were compelled to start the Women's Computer Literacy Center, because the way that computer technology was being taught mirrored the male penchant for stressing rule-learning separated from a holistic understanding of how computers work.

We found that most men prefer to learn by being shown what to do, in what order, to achieve a particular result. They'd rather play with the computer until they get the desired outcome — the goal being to make it work rather than to understand why. In contrast, women generally don't feel comfortable manipulating the machine until they first have an overall picture of what they're doing, and the consequence of doing it wrong.

Our feminist contribution to computer training is that we start with the whole system, then go on to the isolated rules, which then are absorbed easily because they fit within an understandable context. Most other training methods teach rules with the expectation that mastery of the rules is an end in itself, with understanding being secondary. This approach is similar to how math is classically taught -- memorizing rules without any hint that there is an underlying context that makes sense.

I am committed to empowering women to learn to use computers because I believe that we have experienced the high tide of patriarchy, and that its cycle has already begun to slowly ebb. At this time of new beginnings it seems imperitive to posit new models -- particularly technological models — upon which the future will be built. As strong visionary women, we must reassume our pivotal place in scientific and technological development. This is particularly important since the techno-patriarchs will continue to develop and implement nightmarish new machines and technological processes, even as the male principle's overall power wanes.

What I've learned from the NWML experience it that powerful results can occur when conscious feminists graft their sense of appropriateness onto male-inspired technology. Perhaps it speaks to a future marked by a spirit of cooperation in which all life energies -- both male and female — will be united in service to a common good.

As the female principle becomes again ascendant, the creative force which flows from the male principle's drive to understand and control nature by dissecting its parts will be counterbalanced by feminist wisdom that will assess the longterm benefits and appropriate use of new technologies. With such a balance between cooperative forces, the creativity released will truly benefit all, rather than create further hierarchies of privilege such as those we experience under male dominance.

continued from page 3.

4) a mouse or joystick. Hmph.

goWrite, For Example

While writing this article, I found myself unable to edit using keyboard commands. I was at once depressed (oh, no, the fly in the ointment) and elated (Eureka, exclaimed the ever vigilant beta tester, I've found the fatal error!). Just to help the engineers isolate the problem, I reluctantly reconfigured my system to enable my joystick. I was then able to geoSelect text for editing. Hmmm. Is this diagnostically significant? Just prior to calling Berkeley Softworks to inform them of my discovery of the keyboard flaw, I thought I would prudently and, wanting to be on the safe side, reread parts of the manual just to see if, well, you know, on the off chance, there was some mention, maybe, of some sort of keyboard command procedure that I had glossed over. I was sure that there wasn't. Sure enough... there it was...told me all about it...just like I knew. I knew that Berkeley Softworks wouldn't be sloppy. Even Appendix G tells you politely several times to read and reread pertinent parts of the manual.

Like I said, it's a program you gotta work at. But I enjoy it. geoWrite will never replace my workhorse Apple Writer but I do use geoWrite to dress it up when I go to town. I made some spiffy letterhead with geoPaint. If you read dictionaries for grins, you'll love geoSpell. That alone is worth the price of admission.

One meaningless-to-me criticism was that the GEOS deskTOP was similar in many ways to the Apple Desktop standard (tm) but, according to several reviewers, sufficiently different as to be truly maddening. I'm unfamiliar with that standard; I find the deskTOP navigable; geoErgo,...Phil's quote was to go here except I forgot exactly what he said. In essence, Phil explained the Apple standard vis-a-vis those other Apple machines.

GEOS and the GS

Is it worth buying GEOS if you have a //GS? Probably not. GEOS is unabashedly monochrome and, while perhaps four or five times the price, GSWorks has more than color going for it. If you want color, go elsewhere: the GEOS folks thought that color reduced the res of hires. (And if you skipped down to this paragraph to find the cost, call Babbages, it's on sale — or was).

Staff from Berkeley Softworks have indicated that, in addition to write, paint, spell, and merge, a spreadsheet, database, and programming module are on their way. A publish program is available. My understanding is that Berkeley Softworks would like to eventually offer a complete package (I'm not sure if all of the above are included) for a price comparable to Appleworks. They already have a $49 mouse for the //c and //c+ (I think that the e's sit this one out. If I remember correctly, the e would need a mouse interface card not required by the c's. You win some...).

Overall, a good program; very nice software integration at a low price.

AppleWorks Column

compiled by Sallie Abbas

Don't like those "Press space bar to continue" and "Enter date" messages at startup? Here's a patch for AppleWorks ver 2.1:

```
BLOAD APLWORKS.SYSTEM,TSYS,A$2000
POKE 14118,44:REM BYPASS "PRESS SPACE BAR"
POKE 14436,208: REM BYPASS "ENTER DATE"
POKE 14437,19
BSAVE APLWORKS.SYSTEM,TSYS,A$2000
```

-[from Judy Muldawer, Applequerque Computer Club, seen in Appleholics Anonymous:]

+ + + + + + + + + +

Want to use AppleWorks on your Apple II+? If you have an 80 column board and at least 64K, then try Plusworks-2. It allows AppleWorks version 1.1 to 2.0 to run on your Apple II+ or Ace system just like it does on the IIe, IIc, and IIGS. Order #APS-PSWK2-2 for $29 plus $3 s/h from Nexo Distribution, 914 East 8th Street, Suite 109, National City, CA 92050. Phone 619-474-3328 or 3329.

-[from Appleholics Anonymous]

+ + + + + + + + + +

Did you know that pressing Apple-Q then ESC from just about anywhere in AppleWorks will get you directly back to the Main Menu? That's a lot faster and easier than pressing ESC a zillion times to dig your way out of the printer specs sub-sub-sub-sub-menu!

-[from Will Janoff in Appleholics Anonymous]

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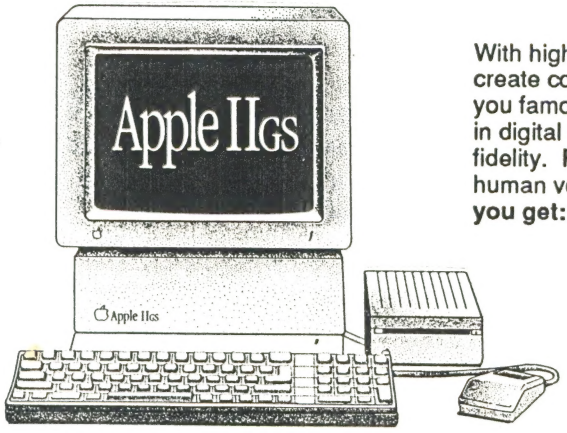

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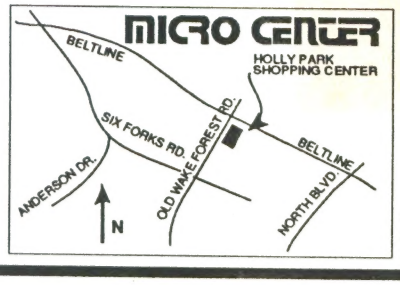

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